Reasonable Available Control Technology (RACT)

1996 List and Schedule

Group A1 Sources

Hog Fuel Boilers	
Impact on Air Quality	A range of respiratory effects are associated with particulates, circulatory effects are associated with CO, and irritant effects are associated with NOx and SO2.[1] PAHs, formaldehyde, acetaldehyde, and dioxins are probable human carcinogens.[2]
Process Pollutants	SO_2, particulate, NO_X, CO, PAHs, phenols, formaldehyde, dioxin, acetaldehyde, metals
Administrative Concerns	Coordinate with MACT rules coming out in other related categories. May need to collect more information on some TAPs. Incorporate revisions into Chapter 173-400 WAC
MACT/NSPS Status	No MACT is currently scheduled for this category.
Emission Reduction Potential	Medium
Remaining Useful Life of Control Equipment	A number of the facilities are 'grandfathered' sources which have little or no control equipment installed, except as necessary to meet our current regulations. These controls date from the early and late 1970's. There also exist a number these units that are new and have been subject to BACT review.
Date of Last BACT, RACT, or LAER Determination[3]	Some hog fuel boilers are very new and have been subject to BACT reviews. All units constructed since the early 1980's have been permitted at BACT levels of control. Older units not subject to NSR, however, are required only to meet the limits in Chapter 173-400 RCW, which are not "RACT" but a level of control considered achievable in the 1970's.

[1] Acronyms are spelled out on page 4.
[2] A determination of whether, or to what extent, health effects are likely to occur will depend on further analysis of ambient air concentrations through the RACT process.
[3] Although the Washington Clean Air Act (RCW 70.94.154 (4)) requires review of the number of years since the last RACT determination, no formal RACT determinations have been performed in Washington. The 1996 List and Schedule marks the first time a schedule has been set to perform these determinations. This requirement to review the number of years since the last RACT determination will be more relevant in Lists and Schedules issued in subsequent years.

Municipal Solid Waste Combustion	
Impact on Air Quality	Potential health effects for the pollutants emitted range from cancer to chronic mucous membrane irritation, other respiratory effects, central nervous system effects, immune response system effects, renal effects, and effects on developing fetuses.[1]
Process Pollutants	Criteria pollutants, HCl, mercury, cadmium, lead, and dioxins[2]
Administrative Concerns	There are five operating facilities in the state to which the federal rule would apply. The new federal rule and existing state rules have conflicting requirements that need to be reconciled. Most facilities are of new design and should have little difficulty complying with the federal rule.
MACT/NSPS Status	Federal Municipal Solid Waste Combustion rule for existing units issued December 19, 1995 under §129 of the federal Clean Air Act.
Emission Reduction Potential	Medium
Remaining Useful Life of Control Equipment	The newest unit in the state is now beginning operation. Most units date from the 1980's and were subject to BACT at the time of permitting.
Date of Last BACT, RACT, or LAER Determination[3]	All incinerators have been subject to BACT. One unit was also subject to LAER for some pollutants. Permitting on the newest unit occurred in 1995 and the largest units were permitted in the mid-1980's

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Fiberglass Fabrication	
Impact on Air Quality	Central nervous system effects from styrene; liver/kidney effects from acetone; to range of effects associated with VOCs.[12]
Process Pollutants	Styrene, acetone, VOC, and polyester resin
Administrative Concerns	Numerous complaints from citizens located near fiberglass fabrication facilities and considerable concern over health effects of styrene warrant action by Ecology before federal MACT standards are finalized; emissions reductions currently available
ACT/NAPS Status	Federal Boat Manufacturing MACT scheduled for completion by the year 2000. Other fiberglass manufacturing plants are scheduled for 1997/98.
Emission Reduction Potential	Medium
Remaining Useful Life of Control Equipment	Initial evaluations indicate that most sources have no emission controls. Most facilities are less than 30 years old.
Date of Last BACT, RACT, or LAER Determination [3]	The facilities in ozone nonattainment areas have been subject to emission control for VOC. The newest facility is now being permitted, utilizing LAER since it is located in a ozone nonattainment area.

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ACRONYMS

BACT	Best Available Control Technology
CO	carbon monoxide
HCl	hydrogen chloride
LAER	Lowest Achievable Emission Rate
MACT	Maximum Available Control Technology
MEK	methyl ethyl ketone
NO_x	nitrogen oxides
NSPS	New Source Performance Standards
NSR	New Source Review
PAH	polycyclic aromatic hydrocarbon
PM	particulate matter
PSAPCA	Puget Sound Air Pollution Control Authority
SO_2	sulfur dioxide
TAPs	Toxic Air Pollutants, Listed in Chapter 173-460 WAC
VOC	volatile organic compounds